

## MEDICAL ILLUSTRATION

## Unilateral Leg Swelling

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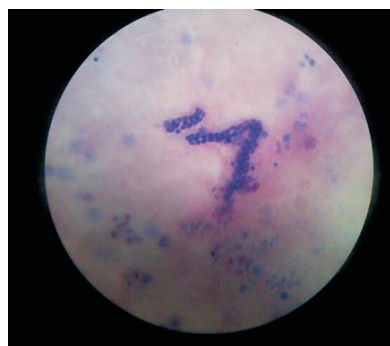
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**Figure 1.** Lymphatic filariasis of right leg before treatment



**Figure 2.** Microfilariae of *W. bancrofti*



**Figure 3.** After 2 weeks treatment of DEC

A 50-year old man was consulted due to right leg swelling concomitant with redness and pain since two months between admission. The patient experienced fever and dull pain in right inguinal region before the leg became swollen. Antibiotic and antipyretic had been given but gave unsatisfaction response. No history of bedridden, hospitalization, or malignancy. He worked as a palm oil farmer in Geragas Village,

langkat District, North Sumatera, Indonesia, an endemic region of Bancroftian filariasis.

Physical examination revealed normal vital signs, there was non pitting oedema and redness in right gastrocnemius region (**Figure 1**). Laboratory results of routine blood count and haemostasis were within normal limit, except leucocytosis ( $12000/\text{m}^3$ ) and eosinophilia (15%). Peripheral blood sample was drawn between 10

pm and 2 am and showed positive microfilariae with gently curved body, a tail that is tapered to a point, and the nuclear column is loosely packed, appropriate for *Wuchereria bancrofti* (**Figure 2**).

Patient's diagnosis was acute lymphangitis due to filariasis of *W. bancrofti*. Treatment was based on protocol in Cunha (2010).<sup>1</sup>

Albendazole 1 x 400 mg po single dose plus Diethylcarbamazine (DEC):

- Day 1 : 50 mg PO
- Day 2 : 50 mg PO q8h
- Day 3 : 100 mg PO q8h
- Day 4-14 : 2 mg/kg PO q8h

Doxycycline 100 mg PO q12h for 6 weeks is optional (doxycycline was not given for this case).

Paracetamol 3x 500 mg and cetirizine 10 mg daily for five days was given for symptomatic purposed.

The diagnosis was reported to health department of North Sumatera Province for epidemiological input and preparation of mass drug administration.

There were no serious side effect of DEC treatment. After 2 weeks, the swelling was resolved (**Figure 3**). The patient use compressive stocking to reduced puffiness of the right leg after long distance walking. This temporary swelling was mild sequel of the filariasis.

Lymphatic filariasis is one of neglected tropical diseases in Indonesia. It is a mosquito-transmitted, helminth infection, transmitted predominantly by *Anopheles* mosquitoes. There are 8 type of filarial worms but only 4 of them are that most causing human disease and complication, there are *Wuchereria bancrofti*, *Brugia malayi*, *Oncocerca volvulus*, and *Loa-loa*.<sup>2</sup>

World Health Organization (WHO) in 2009 reported there were 120 millions people in 81 countries infected with filariasis, 40 million people suffer from permanent damage because of these diseases, such as elephantiasis, or urogenital swelling.<sup>3</sup> Almost all regions in Indonesia are endemic with filariasis, especially in the East Indonesia Region. From 2000 to 2009 chronic cases of filariasis there were 11.914 patients in 401 city/districts.<sup>4</sup>

*Wuchereria bancrofti* is one of the most widely distributed not just in tropic region, but also in sub tropic. Humans are the only definite hosts. The parasite has nocturnal periodicity, which mean that microfilariae density in human blood will increase at night, but the microfilaria will hardly be found.<sup>2</sup>

Early clinical manifestation of filariasis are lymphangitis, lymphadenitis, epididymitis or orchitis, due to adult worm activities in lymphatic drainage. People in endemic regions sometimes do not show symptoms of acute clinical manifestation. Inappropriate or delayed treatment will cause chronic lymphatic obstruction (extremity elephantiasis, hydrocele, chyluria).<sup>2,5</sup>

## REFERENCES

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